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Nordic Journal of
MEDIA STUDIES

Just "performance nonsense"?

How recipients process news photos of activists' symbolic actions about climate change politics

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Abstract

In this article, I investigate how recipients make sense of images that show symbolic actions by environmental activists during two recent United Nations Climate Change Conferences. Environmental advocacy groups are successful in creating visibility for their symbolic actions via news visuals, but little empirical evidence exists about how ordinary media recipients engage with this type of imagery. Can they understand the intended meaning of complex visual rhetoric used by environmental activists? I use think-aloud protocols to uncover the cognitive strategies which are used in processing these stylised visual claims. Results show that news photos rarely manage to communicate the intended meaning of symbolic actions. By systematically analysing various stages of visual frame processing, this study offers insights into specific configurations of the image-viewer relationship that cause high levels of ambiguity and prevent staged visual claims from being understood as intended. Yet I also find empirical evidence for a visual framing approach that works well and describe this recipe for effective communication via symbolic action photography.

Keywords: climate change, symbolic actions, visual communication, frame processing, think-aloud

Introduction

The facts, arguments, and solutions media reports provide are important factors in shaping what Boykoff (2008) called the "cultural politics of climate change discourse", that is, the way climate change is made meaningful for decision-makers and citizens. The extent and nature of climate change coverage in mainstream media is thus an important area of communication research, because it touches on relevant questions about the transparency and accountability of global political regimes, the level of inclusiveness of voices in public debates, the degree of public understanding of climate change and its consequences, and the potential of climate change coverage to trigger changes in attitudes and behaviour among citizens.

Wozniak, A. (2021). Just "performance nonsense"? How recipients process news photos of activists' symbolic actions about climate change politics. *Nordic Journal of Media Studies*, *3*(1), 61–78. https://www.doi.org/10.2478/njms-2021-0004

The way the media influence public understanding of climate science and politics – and its potential to trigger cognitive and behavioural change towards more environmentally-friendly thinking and activity (e.g., Hart et al., 2015) – is subject to the framing of the issue (Entman, 1993), that is, the "central organizing ideas" (Gamson & Modigliani, 1989) media reports offer in their reproduction of complex issues. Frames can be understood as "imprints of power" (Entman, 1993), since the highlighting of certain aspects of a perceived reality is an expression of the frame sponsor's views and interests (Gamson & Wolfsfeld, 1993). Journalists and editors "frame the frames" (Brüggemann, 2014) that extra-medial actors (politicians, scientists, civil society, businesses, etc.) provide, making media reports "forums for framing contests" (Carragee & Roefs, 2004). Media frames are thus not only an indicator for the editorial slant of a media outlet, but also for extra-medial actors' ability (through formal status, economic resources, knowledge of journalistic practices, etc.; see Carragee & Roefs, 2004) to cater to journalistic selection criteria.

The annual United Nations Climate Change Conferences (COPs – Conferences of the Parties) regularly trigger an increase in global media attention towards climate change (Daly et al., 2020; Schmidt et al., 2013). Environmental non-governmental organisations (ENGOs) use these periods of heightened publicity to communicate their messages. But since they often struggle to receive substantial attention in written news reports compared with official government sources (Wozniak et al., 2017), many ENGOs stage symbolic activities to *visually* protest climate change politics (Doyle, 2007). News photos of these symbolic actions are therefore an important (and sometimes the only) avenue for ENGOs to draw attention to their arguments in mainstream media coverage. In their COP coverage, mainstream media outlets are quite susceptible to these ENGO-created visuals (Wozniak et al., 2017). However, the *meaning* of artful protest visuals might be lost to the majority of recipients who are not knowledgeable about the specifics of an issue and the argumentative fault lines of the related debate (Sobieraj, 2011). The present study offers empirical evidence to substantiate and differentiate this assumption. Are recipients able to make sense of the visual rhetoric of symbolic action photos? And if so, are their interpretations consistent, and do they correspond with the sender's intended meaning? The analysis shows that viewers' message interpretations are variegated and, accordingly, often fail to match the intended visually represented arguments. But the analysis also reveals particular characteristics of visuals and image-viewer relationships[1] that help to facilitate the effective communication of a visual message: 1) a low level of metaphorical abstraction; 2) absence of message-confounding elements in the image; 3) obvious cultural references; and 4) established visual tropes.

The visual rhetoric of symbolic action photos

There is a nascent but burgeoning field of research on visuals and climate change. Most of the studies so far have looked at what kinds of visual discourse exist (for

an overview, see O'Neill & Smith, 2014; for more recent studies, see O'Neill, 2020; Born, 2018; Rebich-Hespanha et al., 2015). Hansen and Machin (2013: 157) summarise the literature's key finding that "visual representations of the environment tend to be decontextualized and aestheticized" and that this allows them to be used across communication genres, to be related to new significations, and to draw on larger and more permanent cultural discourses on nature and the environment.

While we have a reasonably comprehensive understanding of the content of visual media representations of climate change, there are only a few studies which focus on how audiences interpret climate change visuals (O'Neill & Smith, 2014). Recent studies have focused on the effects of various types of climate change imagery on people's attitudes and behavioural intentions. Using a Q-Sort design with participants in the UK, the US, and Australia, O'Neill and colleagues (2013) show how climate impacts imagery (e.g., a flood aerial view or cracked ground due to drought) promotes salience but undermines self-efficacy, energy futures imagery promotes self-efficacy, and photos of politicians and celebrities undermine perceived issue salience. These results were corroborated by a study in German-speaking countries by Metag and colleagues (2016). However, Hart and Feldman (2016), using an experimental design with participants from the US, found that images of climate protests did not increase perceptions of efficacy, impacts imagery did not significantly reduce perceptions of efficacy, and imagery in general had no effect on perceived issue importance. As these ambiguous results show, more empirical research – using different modes of measurement and alternative types of images – is needed to advance our understanding of the role of visuals in climate change engagement.

The basic assumption of the present study is that while imagery is often processed in a more experiential, intuitive fashion (Slovic, 2007), news visuals can also function as propositions or arguments (Birdsell & Groarke, 2007; Blair, 2004), that is, they can communicate discrete aspects of an issue. I thereby follow a strand of research that is concerned with visual metaphors (Messaris, 1997) and visual rhetoric (Foss, 2005). There is some evidence that viewers are able to comprehend the visual claims intended by a communicator (Mitchell & Olson, 1981); however, visuals lack an explicit propositional syntax – that is, they do not have explicit structural rules (such as grammar for verbal and written language) for the expression of analogies, contrasts, or causal claims (Messaris & Abraham, 2001). The fact that visuals allow multiple encodings (Geise & Baden, 2015) makes meaning construction from a visual source highly volatile. What does message comprehension look like when a visual stimulus is strategically created and utilises rhetorical devices such as metaphors to communicate a specific proposition?

Symbolic action photos are commonly used by ENGOs to trigger public attention to environmental issues (Doyle, 2007). They often involve artistic installations using people or props to create colourful, dramatic, or surprising images (e.g., the Greenpeace activists on horseback dressed up as the Four Horsemen of the Apocalypse during the second week of COP15 in Copenhagen, 2009; see

Greenpeace media, 2009). They are regularly chosen to illustrate news stories about the COPs (Wozniak et al., 2017). But are ENGOs mere "camera fodder", or is there potential for a more meaningful contribution to the public discourse via symbolic visuals? While content analyses seem conclusive about generated *visibility*, audience research can reveal whether these symbolic action photos are also *intelligible* for the average audience member.

With this article, I aim to contribute to our understanding of how citizens engage with news visuals about climate change – especially those showing ENGO-produced symbolic actions with a strong intended visual claim – and focus on the cognitive aspects of engagement with climate change imagery. I also answer the call for delving deeper into how visual symbols function in public affairs (Schill, 2012) by focusing on the public perception of strategic visual communication efforts by members of civil society.

Visuals as rhetorical devices

Smith and Joffe (2013: 18) argue that "visual information is particularly salient for global warming since it can render the [often remote and unobtrusive] issue concrete". Images are indexical (they are commonly viewed as representing a direct connection to that which is signified), but lack an explicit propositional syntax (causality and other propositions must be implied rather than stated) (Messaris & Abraham, 2001). The latter has the effect that "visual representations permit multiple (iconic, indexical, symbolic/conventional) strategies for assigning meaning; their decoding depends strongly on an interaction between perceptual structuring and available knowledge" (Geise & Baden, 2015: 58).

Theories of visual framing and visual rhetoric (Foss, 2005) have highlighted the importance of image-viewer interactivity in images' potential to reveal meaning and create claims. The common ground in scholarship on visual rhetoric is that visual arguments "operate as enthymemes in which audiences employ contextual cues to complete the image's probable claim" (Hahner, 2011: 114). Similarly, Rodriguez and Dimitrova (2011) maintain that visuals as connotative systems not only denote that which they show but also the ideas or concepts attached to these signifiers. The denotative content of an image has a symbolic role beyond the purely analogical and therefore must be "critically [examined] for their more complex, often culture-bound interpretations. Consequently, the meaning one gets from a symbol is highly personalized and distinct" (Rodriguez & Dimitrova, 2011: 56).

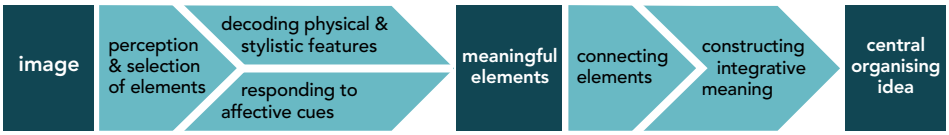
Models of visual frame processing

Drawing together insights from framing and visual communication research, Geise and Baden (2015: 47) provide a heuristic model for recipients' visual frame processing, that is, for "how individuals construct coherent meaning from complex stimuli". They argue that visual frame processing "follow[s] a recursive sequence of

(a) the selective perception and structuring of information; (b) its semantic decoding; (c) the construction of meaningful relations between detected elements; and (d) their integration into coherent meaning" (Geise & Baden, 2015: 47). But visuals allow for multiple possibilities in selecting relevant elements; for various strategies of assigning meaning to these elements; and merely suggest how the decoded elements can be associated with one another or other contextual information in order to construct a coherent meaning. Visual frame interpretation is thus much more heterogeneous and unpredictable than meaning construction based on textual information.

Geise and Baden (2015: 64) assert that "emotional responses to perceived stimuli feed as information into the overall construction process", and therefore refrain from delineating a separate emotive or affective stage in their model. I argue that by amending their model with an additional stage that considers the affective state evoked in the viewer by the image – following Chryslee and colleagues (1996) – we can arrive at a more comprehensive picture of visual frame processing. Erisen and colleagues (2014: 187) show that feelings aroused in the initial stages of processing colour all subsequent considerations in political thinking (what the authors call "affective contagion"). I therefore distinguish between the assigning of meaning to discrete physical and stylistic features of an image and the viewer's response to affective cues at the frame elaboration stage (see Figure 1).

Figure 1 Visual frame processing model



Source: based on Geise & Baden, 2015

The variability of potential strategies of visual frame processing should be viewed as a multi-dimensional concept corresponding to the stages of the image-viewer relationship during the processing of a visual's meaning. The degree to which visual frame processing is polysemic is subject to 1) ambiguities of the image's features that can evoke meaning (denotative, stylistic-semiotic, connotative, and ideological; see Rodriguez & Dimitrova, 2011); and 2) the idiosyncrasy of a viewer's cognitive processing based on decoding strategies and available knowledge (Geise & Baden, 2015: 58). Based on this interplay of image features and individual viewers' characteristics, we can identify at least five dimensions of image-viewer polysemy along the visual frame processing model (see Table 1): denotative and stylistic-semiotic polysemy refer to potential differences in the perception and selection of physical and stylistic aspects of an image as meaningful; affective polysemy refers to ambiguities in the mood evoked by the image; associative polysemy refers to differences in which and how elements are being related to one another and to image-external cognitions; and connotative polysemy refers to differences in meaning construction as a result of an iterative cognitive framing process.

Table 1 Dimensions of polysemy in visual frame processing

Stage of visual frame processing	Dimension of polysemy
perception & selection of elements	denotative stylistic
decoding of elements	denotative stylistic affective
frame elaboration (connecting elements)	associative
frame interpretation (overall meaning construction)	connotative

The basic assumption is that high polysemy in the image-viewer relationship during the first three frame processing stages (see Figure 1) will result in substantial inconsistency in visual frame interpretation across viewers. Due to the "simultaneity" of visual symbols (Chryslee et al., 1996: 9) and the iterative nature of cognitive frame processing (Geise & Baden, 2015), I don't expect the effect of polysemy to be additive across stages, but idiosyncratic. Just how polysemy in the image-viewer relationship varies across the stages of visual frame processing and ultimately affects the ability of viewers to infer the intended meaning from a symbolic picture is tested empirically.

Research design

The analysis is based on a comparison of two data sources: 1) an analysis of the self-proclaimed messages that ENGOs (Greenpeace, the TckTckTck campaign, WWF, Oxfam, and Sierra Club) wanted to communicate with their symbolic actions during the COPs in Cancun (2010) and Durban (2011); and 2) the meaning (re)construction by recipients based on their viewing of photographic representations of these actions as they appeared in widely-circulated newspapers in Brazil, Germany, India, South Africa, and the US (Wozniak et al., 2017).

Stimuli and data collection

The selection of press photos of ENGOs symbolic actions is based on the multi-country visual content analysis by Wozniak and colleagues (2017), who found that 50 out of 451 analysed news photos from COP coverage between 2010 and 2013 in newspapers from five countries[2] showed symbolic actions by environmental activists. These 50 photos depict 24 unique symbolic activities. Symbolic activities that only appeared once in the dataset were excluded, as were news photos that were not available in an adequate resolution for being displayed on a computer screen, or for which no primary-source account of the intended message of the symbolic action could be found. The final selection comprised eight news photos of symbolic actions (see Table 2) by Greenpeace (five photos, three of which were together with the TckTckTck campaign)[3] as well as the World Wide Fund for

Table 2 Symbolic action photos used in analysis

Image no. & title	ENGO (source)	Image description	Message description
1. wind turbine	Greenpeace & TckTckTck (Shayne Robinson for Greenpeace)	Volunteers of Greenpeace and TckTckTck raise a wind turbine at dawn on the beach in Durban during COP17. The volunteers and the wind turbine are visible only as silhouettes.	To "send a message of hope for the latest round of climate change talks [which] must be a new dawn for the international negotiations to agree a fair, ambitious and legally binding treaty to avert climate chaos" (Greenpeace, 2011a).
2. lighting candles	WWF (Gerardo Garcia for Reuters)	Activists from the WWF light candles arranged in the shape of the Earth on the beach in Cancún during COP16 in preparation for a demonstration.	The WWF is "calling for a catch up plan to prevent climate change" after negotiations on a binding treaty for emission cuts failed at COP15 in Copenhagen (Reuters, 2010). The action mirrors the annual "Earth Hour", organised by the WWF, when people, businesses, and landmarks around the world switch off their lights and light candles to "shine a light on climate action" (World Wide Fund for Nature, 2017).
3. drowning landmarks	Greenpeace (Eduardo Verdugo for Associated Press)	Greenpeace activists in the water hold cardboard models of famous landmarks from around the world during COP16 in Cancún. In the background, a beach and hotels are visible.	To "remind governments that the rising tide of climate impacts, be they economic, environmental or humanitarian will affect each and every one of us – rich and poor if leaders don't make the choice in Cancun to take immediate action to combat climate change" (Greenpeace, 2010b; punctuation in original).
4. balloon over Maya temple	Greenpeace (Prometeo Lucero for Greenpeace)	A hot air balloon by Greenpeace with the message "Rescue the Climate" floats over the ruins of the Mayan city of Chichen Itza and the surrounding forest in Yucatan.	"Greenpeace is sending the message that even the most advanced civilizations can collapse, and urges that if we do not act, climate change could have devastating consequences for humanity […] governments can – and must – set us on the path to a safe future – by making climate change history" (Greenpeace, 2010a).
5. 'Hope?'	Greenpeace & TckTckTck (Israel Leal for Associated Press)	Greenpeace and TckTckTck activists form the question "hope?" with their bodies on the beach of Cancún during COP16.	The action had a second group of activists "dressed as delegates [as they] swam out to sea and were 'swept away' by a sea of troubled talks" (Greenpeace, 2010c). The activists forming the word "hope?" would then rise up "to push a giant life ring into the sea and rescue the floundering negotiators" (Greenpeace, 2010c). This was done "to bring a message of hope to the negotiators heading into these talks and to show them that civil society is ready to act on climate change and so should they" (Greenpeace, 2010c).
6. heads in the sand	Sierra Club (Agence France-Presse)	Activists from the Sierra Club with flags – representing countries, the World Bank, and the Shell Company – on their backs put their heads in the sand on the beach in Durban during COP17. Activists in the background who wear animal masks hold cardboards representing windmills and a solar panel.	To "highlight governments that continue to bury their heads in the sand and block critical action at the negotiations" (Sierra Club, 2011). The windmills and solar panel in the background "represent the clean energy that can safely power our future" (Sierra Club, 2011).
7. message in a bottle	Oxfam (Reuters)	Volunteers from Oxfam place a giant inflatable bottle with the message "urgent – save lives in Cancun" at the beach of Cancún during COP16. Tourists are also visible.	The bottle also contained print-outs of selected messages from people having used "#tweet-bottle" on Twitter (not visible in the photo). The bottle was then displayed "outside the conference centre" to "send a message of urgency to government representatives meeting in Cancún" (Oxfam Australia, 2010).
8. lion's head	Local children in Durban, Greenpeace & TckTckTck (Shayne Robinson for Greenpeace)	An aerial view of 1,500 children who form a lion's head on the beach in Durban during COP17.	To "send a message to the leaders of COP17: show some courage for the climate" (Greenpeace, 2011b)

Nature (WWF), Oxfam, and the Sierra Club (one each). A Google image search was conducted to find the original blog entry or press release about the symbolic action on an official website or weblog of the respective organisation.[4]

To ascertain the viewers' strategies for constructing coherent meaning from these visual stimuli, I used concurrent think-aloud protocols.[5] The participants for the study comprised students (three), researchers (two), and administrative staff (three) from the University of Mannheim, and non-academic blue- and white-collar workers (seven) from Mannheim and the Rhein-Neckar metropolitan area in Germany, for a total of 15 participants. All sessions were conducted in 2016 in Mannheim, Germany. The participants were purposefully selected to achieve sufficient sociodemographic variance – for example, in terms of age (20–62 years old), gender (four male, eleven female participants), and level of formal education (ranging from secondary school leaving certificate to doctorate degree) – in order to attain theoretical saturation in a resourceful manner. The participants were asked about their level of interest in the topic of climate change and concern about climate change using five-point scales. All participants reported "very high" or "high" interest and concern.

All 15 participants were shown the same eight news photos of ENGOs' symbolic actions, thereby creating 120 distinct observations. I provided all participants with the context in which these images had been published (coverage of the COPs) but did not offer any more details about the genre or style of the images beforehand. Every think-aloud session used a newly randomised order of these images to control for sequence and learning effects. The think-aloud task was semi-standardised; whilst looking at each picture, participants were asked to think about and verbalise 1) what they saw in each photograph; 2) what mood or atmosphere the photograph conveyed; and 3) the message or meaning they could discern.[6]

Data analysis

The protocols of the recorded sessions were segmented into clauses as the basic semantic unit. These segments were then classified in reference to the categories of the visual frame processing model: perception and selection, decoding, affective response, connections, and meaning construction. One segment could be connected to more than one category. Repetitive patterns emerged very early, and a saturation of response types was achieved after eight to ten sessions (congruent with Šorm & Steen, 2013, who used six participants); additional sessions were conducted to further increase the robustness of the findings.

Results

The degrees of polysemy in image-viewer interactions were assessed by determining whether the participants reported similar or diverging perceptions, impres-

sions, elaborations, and interpretations during their engagement with the symbolic visuals.

Denotative and stylistic-semiotic polysemy

With the exception of the "wind turbine" photo,[7] the perception and selection of meaningful elements was very similar across all participants on the denotative and stylistic-semiotic levels of visual framing (low polysemy). Minor ambiguities were due to topographic uncertainties (some participants failed to recognise the stylised continents in image 2 as depicting the Americas); difficulty in properly attributing architecture to its cultural or national context (the Pagoda and the Angel's statue in image 3 were not recognised by most participants; some respondents placed the Maya temple in image 4 in Peru, China, or Thailand); and the indistinctness of small elements (some participants had trouble identifying the stylised solar panel and animal masks in image 6).

Affective polysemy

For images 1, 3, and 4, the described mood ranged from "cheerful", "pleasant", and "beautiful" on the one hand, to "gloomy", "menacing", and "dismal" on the other. For image 6, the sunny weather and the beach-setting were described as "pretty" and conveying a "holiday-like" atmosphere, but the symbolic action itself was deemed "macabre", yet also "expressive". This contrast between the surroundings and the actual visual metaphor was perceived as being "odd", "peculiar", and "confusing." Image 3 also evoked ambiguous perceptions of mood (due to the juxtaposition of modern beach hotels with the symbolic drowning of global landmarks). This, however, was part of the intended message, which was supposed to "[add] a twist to the resort city's coastal horizon" (Greenpeace Africa, 2010).

Associative polysemy

All but two images triggered high levels of associative polysemy. The think-aloud protocols point to two reasons for the observed variability in how image elements were connected with each other or associated with existing knowledge: 1) message-confounding photo elements; and 2) cultural misattributions of metaphor vehicles (Steen, 1994).

Message-confounding photo elements led to particularly ambiguous associative configurations in the processing of images 4, 6, and 7. The spatial environments of these symbolic actions contained visual cues which were not part of the activists' visual claim construction, as happened with image 4.

> The gloominess, the murkiness, I could imagine this refers to CO_2 emissions. Maybe it is really in China and it is about how the air there is not so good anymore and this is supposed to be a warning to register the CO_2 emissions.

Other participants used the rain forest as the main anchor for their visual frame conceptions and accordingly interpreted the photo as a call for action to save rain forests.

> You can see this big, untouched landscape, where we know that rain forest especially is massively endangered – what Greenpeace is probably pointing out here.

Most participants easily recognised the metaphorical aspect of the heads being buried in sand in image 6, but felt overwhelmed by the number of additional photo elements.

> This is rather disconcerting. There are, on the one hand, these people with the animal masks and then these people who bury their heads in the sand, which creates a rather absurd mood, but also somewhat in contrast to this paradise-like beach. [... It] surely has a totally profound meaning, but it seems to me like some kind of performance nonsense.

Similarly, the beach setting in image 7 led to confusion as to how this could relate to the written message of "urgent – save lives in Cancun".

> Beach always has something [to do] with holiday and everyone is looking forward to it – and to associate that with something menacing, I can't quite get it on top of one another.

These perceptions of incongruity could not be resolved because incidental and peripheral elements were perceived as potential metaphor vehicles. Participants then tried and failed to attribute these elements' aspects to a meaningful target domain (Šorm & Steen, 2013).

Message-confounding elements were absent from the "drowning landmarks" photo (image 3); the backdrop of the hotel complexes was picked deliberately by the Greenpeace activists to juxtapose the threat of rising sea levels with economic progress and luxury. Combined with the use of iconic and culturally diverse imagery – the Statue of Liberty, the Eiffel Tower, the Taj Mahal, and so on – plus the use of the classic trope of drowning civilisations, this symbolic action provided only those visual clues that helped to resolve the metaphorical incongruity and interpret the image in accordance with its intended message. Some participants were even able to associate the perceived ambiguity in content and mood with the intended juxtaposition of civilisational progress and environmental and societal doom.

The degree of associative polysemy was also dependent on the viewers' cultural affiliation with metaphor vehicles. Where the central elements of the symbolic actions closely aligned with common verbal metaphors ("heads in the sand") or culturally ingrained tropes ("drowning civilisations"), associations between image elements and existing knowledge were rather consistent. This was not the case with more culturally distant – from a German point of view – metaphor ve-

hicles. The ruin in Chichen Itza (image 4) failed to trigger an association with the collapse of advanced civilisations, because the viewers had difficulty identifying the Maya temple and then establishing a logical connection between the central elements of the image.

> I don't understand why this fortress is in between there; maybe in a sense […] that there is too little of nature and instead buildings created by humans.

The lion's head (image 8) left participants clueless as to its association with climate change and the COPs. Likely due to cultural incompatibility, the lion was associated with "aggressiveness" or the issue of "endangered species", but not with a "call for courage" (as intended by the activists). The beach setting further distracted viewers from the original meaning that had the COP negotiators as the intended addressees.

Connotative polysemy

All but the "drowning landmarks" photo yielded eclectic message interpretations. The nature of these ambiguities in ascribing meaning was highly idiosyncratic and is described on an image-by-image basis below.

Image 1: Wind turbine

The ambiguous colour scheme and the inability to convey the direction of the wind turbine's movement led to inconsistent and even contradictory perceptions of content, atmosphere, and meaning. While most people believed to see a "pro renewable energy" message, others were unsure about the "pro" or "contra" messaging, while one respondent was very certain about seeing a "contra renewables" message:

> Maybe an organisation that is opposed to wind power or these wind turbines, which is using this picture as a logo for their campaign, that they somehow want to abolish wind turbines together, because this wind turbine is toppled.

Image 2: Lighting candles

The majority of viewers had "no clue", "no idea", or said it was "hard to say" what the image was supposed to tell them. Interpretations included "the planet is heating up", "we waste too much energy" (by associating burning candles with burning fossil fuels), or "the Earth is delicate and sensitive" (due to the contemplative mood), and "a unified world" (attributed to the circle of candles). Viewers could not attribute the metaphor vehicle of the candles to the intended – and too abstract – metaphor target ("shine a light on climate action").

Image 3: Drowning landmarks

The message Greenpeace wanted to communicate was consistently understood as a warning about a world in danger due to rising sea levels. Despite an uneven perception of the image's mood, the visual metaphor worked very well, with

many participants even pointing out the juxtaposition of the hotel resorts with a drowning world:

> And this in front of such a nice backdrop, where everything runs perfectly with the energy that primarily causes the effects [of climate change].

Image 4: Balloon over Maya temple

Despite understanding the written slogan "Rescue the Climate", most respondents could not infer a strong message from this photo. Interpretations varied from exhaustive development, to a warning about CO_2 emissions, to the depletion of rain forests. The metaphor vehicle of the Maya temple failed to establish the intended connection with its metaphor target ("downfall of advanced civilisations"); instead, some participants chose either the rain forest or the overcast sky as metaphor vehicles.

Image 5: "Hope?"

The meaning was uniformly interpreted as raising the "question of hope", but all respondents struggled to describe a more precise message beyond that. Several participants inferred a message about rising sea levels from the location of the activity close to the water edge. The inability to construct a more substantial message was obviously due to the fact that the photo only showed a part of a bigger and longer activity; the "hope?" slogan was taken out of its original context and left viewers with a generic symbolic question but no other contextual clues that could have helped to construct a more nuanced meaning closer to the intended message.

Image 6: Heads in the sand

While some participants failed to infer a clear message (beyond the proverbial "heads in the sand"), others interpreted the message as "exploitation of African countries", animals being affected faster by climate change than people in the US or Europe, dirty air (when the animal masks were mistaken for gas masks), or protesting "this globalisation crap". The multitude of performance elements combined with the perceived friction between a serious message and a "paradise-like" beach was both overwhelming and confusing for some viewers.

Image 7: Message in a bottle

The overall meaning remained unclear for most participants. Some saw a reference to rising sea levels, or to pollution of the oceans, or just inferred a general call for action. Despite using a prop whose proverbial symbolism was easily recognised, the photo failed to convey its message due to the commonplace nature of the slogan, the conflicting elements of a sunny beach and a serious message, and a lack of contextual clues as to who this message was supposed to be from and who the addressees might have been.

> It seems out of place […] who is the messenger here, who is the receiver? Are they doing it for me as a reader of the newspaper or are they doing it on-site?

Image 8: Lion's head

Due to their inability to connect the picture of a lion's head to the concept of "courage" and the issue of climate change, participants were clueless about the message that the activists wanted to convey. Some would come up with wild guesses – the lion representing strength, "something to do with Africa", "overfishing" (when the lion was mistaken for a fish), "endangered species", and so on.

> I don't really have a clue, because somehow with this lion, I'm not able to make sense of it. Maybe it is about the sports team with this lion, I don't know.

Viewers' interpretations versus intended messages

In the final step of the analysis, the visual frame conceptions from the think-aloud protocols were compared with the intended messages of the symbolic actions. Participants' interpretations of the photos mostly failed to match with the activities' intended messages. The only exception is image 3, for which nearly all participants interpreted the message – as intended by Greenpeace – as a warning of the dangers that climate change and, as a consequence, rising sea levels pose to the future of humanity. While the metaphor of the "rising tide of climate impacts" – including economic consequences – was not picked up entirely, the general thrust of the visual claim, including the juxtaposition of civilisational development and environmental catastrophe, was well understood by viewers. The responses point to four reasons for why this photo worked well in communicating the intended message of the symbolic action: 1) the low level of metaphorical abstraction (through the literal drowning of objects); 2) the absence of message-confounding photo elements (through the strategic integration of background elements in message construction); 3) the very strong fit with people's basic cultural knowledge (through the use of famous monuments from around the world); and 4) the use of a visual trope ("drowning world") that has been widely used and firmly associated with climate change in media reports and artistic representations (Lowe et al., 2006).

The other photos failed to communicate the core messages of the activities they depicted. As predicted by the visual frame processing model, the spectrum of visual frame interpretations is dependent on the degrees to which image-viewer relationships are polysemic across the processing stages. The think-aloud protocols reveal how high variabilities in 1) the selection of image elements as meaningful; 2) responses to affective cues; 3) the connections made between image elements; 4) the associations made between image features and individuals' prior knowledge; and 5) the strategies used to combine these aspects into a coherent meaning lead to visual frame interpretations that are inconsistent across viewers and often fail to closely correspond with the intended messages.

We have already seen that high polysemy during visual frame elaboration was caused by message-confounding image elements and cultural misattributions of

metaphor vehicles. Frame interpretation was further exacerbated when photos only displayed parts of a more elaborate symbolic activity, as was the case with the "hope?" slogan and the message in the bottle. In both cases, viewers had difficulty in coming up with any kind of coherent message interpretation, because elements central to the visual claim making effort were not visible and thus not available for frame processing.

Another impediment to message reconstruction was the use of very abstract and context-heavy metaphorical constructions which participants were unable to recognise and resolve: the rising sun symbolising hope for "a new dawn in negotiations"; the lighting of candles to "shine a light on climate change"; the Maya temple as a symbol for the downfall of advanced civilisations; and the lion's head as a metaphor for courage. These visual metaphors failed to work as framing devices (Gamson & Modigliani, 1989), that is, they proved incapable of triggering the types of mental models among recipients that the authors of these symbolic actions were ostensibly hoping to activate.

Conclusion

This study offers novel empirical evidence about the ability of civil society actors to communicate their viewpoints via the use of complex visual rhetoric. The results indicate a substantive disconnect between message intention and message comprehension. Only one of the eight symbolic action photos selected for this study was consistently interpreted in accordance with its intended message. The other photos were either read inconsistently or failed to communicate any substantial meaning at all. The comparison of think-aloud protocols and ENGOs self-proclaimed message intentions helps to identify a number of factors in the image-viewer relationship that promote high polysemy and are therefore detrimental to the understanding of complex visual claims: 1) the presence of message-confounding image elements not inherent to the strategic claim-making; 2) stylistic choices of the photographer (field size, camera angle, lighting) that render elements of a symbolic activity indistinct or completely invisible; 3) cultural distance of audience members to metaphor vehicles; 4) the use of highly abstract and context-heavy visual metaphorical devices; and 5) the incapability of still photographs to communicate temporal aspects or the sequential nature of symbolic activities.

The volatility in visual frame processing and the resulting vagueness in message comprehension suggest a low potential for photos of elaborate symbolic activities to substantially contribute to the mediated public discourse on climate change beyond attracting attention to ENGOs' brands. While the repeated use of ENGO-produced pictures in news reports about the COPs can be deemed a success in creating *visibility*, they seem to fail in terms of *intelligibility*. Visual news framing of climate change is dominated by visual synecdoches (e.g., ice, polar bears, smokestacks, wind energy), which can be "used within a particular culture to immediately signify to the reader a particular set of ideas about climate change"

(O'Neill, 2020: 17). The images analysed in the present study provide (occasionally incomplete) snapshots of activities that make use of such visual synecdoches, but which incorporate them into more elaborate and multi-faceted metaphorical arrangements. How members of the public cognitively process news content is variable in itself because of the contingency on audience members' individual characteristics and capabilities and cultural predispositions. In our case, these inconsistencies are further exacerbated by a very polysemic medium (photography) that is being used for capturing highly contextualised, performative expressions of symbolic and metaphorical statements.

A methodological limitation of this study is the artificiality of the quasi-experimental conditions of data collection. This, of course, reduces the external validity of the findings to some degree, since real-life news reception would have readers see these images in their context within an article or with an added caption. I made a deliberate choice to favour the internal validity of the visual frame processing data for this explorative study. This allowed the assessment of the intricate interplay between image content, stylistic-semiotic features, individually contingent connotations, and affective cues in a controlled environment that limits the effect of confounding variables. Future research, of course, must build on these findings and test them in more "natural" settings of media reception so that we may better understand the interplay between news visuals and news texts for audience members' sense-making.

Future research should also examine to what extent the observed ambiguity in message comprehension of symbolic action photos also results in eclectic framing effects. Visual claims that are hard to understand or lead to inconsistent interpretations are likely to undermine intended effects on audience members' feelings of self-efficacy, motivations for behavioural change, and positive evaluations of an organisation's activity. ENGOs crave media attention since donors use this as an indicator of success and impact. But when ENGO-created symbolic actions are evaluated as being confusing or "macabre", or as "performance nonsense", even by concerned viewers, the gain in publicity might be offset by negative impressions these activities generate on the part of potential donors and activists.

Finally, and in more practical terms, the results also suggest that photos of symbolic actions can very well communicate their intended claims when they 1) utilise iconic symbols with cross-cultural appeal; 2) plug into common cultural narratives; 3) do not rely on a sequential structure; and 4) use all aspects of their spatial environment as components for their metaphorical message construction. Adhering to these principles might help members of civil society to more effectively communicate their claims to the general public via symbolic actions.

Notes

1. The concept of image-viewer relationship refers to associations that are established between an image's manifest content or stylistic features and the viewer's cognitions and emotions in the moment of (and/or after) perception of an image. Image-viewer relationships are therefore always contingent on individual and cultural predispositions.

2. The analysed newspapers were *Folha de São Paulo* and *O Globo* from Brazil, *Frankfurter Allgemeine* and *Süddeutsche Zeitung* from Germany, *The Hindu* and *The Times of India* from India, the *Daily Sun* and *The Star* from South Africa, and *The New York Times* and *The Washington Post* from the US.
3. The TckTckTck campaign was "the public face" of Global Campaign for Climate Action (GCCA), "a global alliance of non-governmental organizations, trade unions, and faith groups that was formed to influence the international climate change treaty at the United Nations Climate Change Conference to be held in Copenhagen, Denmark in December, 2009" (Global Humanitarian Forum, n.d.).
4. In the case of the WWF, the organisation's intent was reconstructed via a combination of the caption provided by the photo-source (Reuters) in their image database, and the WWF's description of very similar symbolic activities about climate change.
5. Šorm and Steen (2013: 2) argue that "since thinking aloud gives access to the concepts people attend to when they perform cognitive tasks, it is an appropriate technique for mapping the conceptual operations that may be at work during visual metaphor processing".
6. There is a trade-off in terms of losing freely associated thoughts that might not be captured due to these specifications. But a guided think-aloud design allows us to better exemplify and validate specific aspects and stages of the visual frame processing model (see Figure 1).
7. The participants perceived the physical content quite differently due to the photograph's inability to accurately convey direction of movement. While some respondents were sure about seeing the wind turbine being erected, others were equally sure that it was being pulled down. A few respondents considered both options.

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